



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,728	06/11/2007	Brian Mandt	00758.1824USWO	1718
23552	7590	01/19/2011		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER	
			STELLING, LUCAS A	
			ART UNIT	PAPER NUMBER
			1776	
			MAIL DATE	DELIVERY MODE
			01/19/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,728	MANDT ET AL.	
	Examiner	Art Unit	
	Lucas Stelling	1776	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1776

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohrbach in view of U.S. Patent No. 4,075,098 to Paul et al. ("Paul"), U.S. Patent No. 5,681,461 to Gullet ("Gullet"), and U.S. Patent No. 6,251,273 to Jawurek et al. ("Jawurek").

5. As to claim 1, Rohrbach teaches a service cartridge for positioning in a filter housing; the service cartridge comprising:

filter media **(315)** having a first and second ends **(A and B)** and positioned around a central opening area;

a first end cap (**part of the frame 317 constitutes an end cap of the filter**) secured to the first end of the filter media; and ,

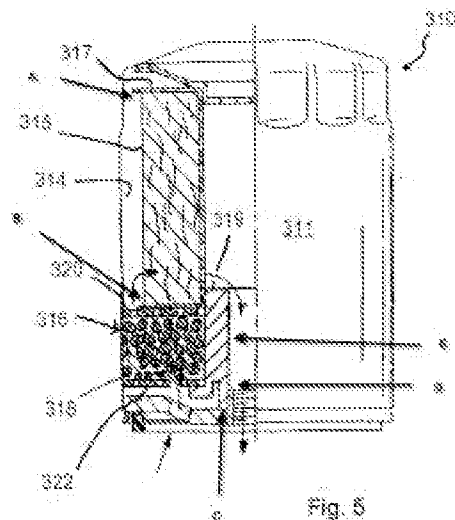
a treatment agent storage and release cartridge **(the cartridge is defined by the upper plate 320, the lower plate 322, the sealing member 319, see also [0055], [0056], and [0057])** to the second end of the media;

the treatment agent storage and release cartridge having a ring configuration **(the filter is cylindrical)** defining an inside wall **(E)** defining a central flow conduit in liquid flow communication with the central open area defined by the filter media;

the inside wall having no diffusion apertures **(no diffusion apertures are show through the inside wall)** therethrough;

the treatment agent storage and release cartridge also having an end wall, the end wall having flow apertures therethrough **(See 322 in Fig. 5 apertures are provided)** and

a housing seal arrangement **(see C and D)**.



6. Rohrbach is different from claim 1 in that in that in Rohrbach the outer housing of the filtration unit is an exterior wall to the additive section, without which the plurality of additive dispensing modules would not be held in the cartridge. Conversely, claim 1 requires no impermeable wall therearound the filter media in extension completely between the first and second walls when the cartridge is ready for installation in a filter housing, for use. Also, since Rohrbach uses the filter housing wall as an exterior wall, Rohrbach does not teach that the treatment agent storage and release cartridge has an outer side wall with flow apertures arranged therethrough. Nor is a specific diffusion area relationship mentioned between end walls and side walls. Also, Rohrbach does not teach that the first end cap is closed with no aperture therethrough, or that the a housing seal arrangement comprises a radially inwardly directed seal member positioned on the treatment agent storage and release cartridge and oriented to seal to a central housing stand pipe when the cartridge is installed in a filter housing.

Art Unit: 1776

7. Paul teaches a ring shaped additive body located in a filter housing (**See Paul 84 in Fig. 1**). Paul teaches that the use of an additive body comprising high-molecular weight polymer additives allows for a slow dissolution and dispersion rate in the oil (**See Paul col. 8 lines 5-25**). Paul also provides a retaining plate for holding the additive body and for masking the fluid contact surface with a lip portion (**See Figs. 8-10, and see col. 12 lines 40-68**). The retaining plate in Paul contains a lip portion (**See in Figs. 8-10, again**), the examiner is interpreting the lip portion to be a sidewall. Paul teaches that apertures are provided in the lip portion, which are used to control the amount of fluid contact with the additive body (**See col. 12 line 60 -- col. 13 line 5**). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to replace the plural additive dispensing modules in Rohrbach with an additive ring type configuration as shown in Paul, which is held in place using the end plate in Rohrbach and to provide a lip portion, or sidewall, with apertures; this arrangement provides for a slow dissolution and dispersion rate of additives within the oil, as well as for selecting the fluid contact rate with the additive in the cartridge. In doing so, the ring shaped additive body would be held in place and would not require the filter housing for containment.

8. As to a specific diffusion area ratio, Paul contemplates varying the size and number of the apertures in order to select a desired oil/additive contact rate (**See Paul col. 12 lines 60-- col. 13 line 5**). Therefore, the size and number of holes, and as such the diffusion area on the end with respect to the diffusion area on the side, are result effective variables, which would have been obvious for a person having ordinary skill in

Art Unit: 1776

the art to optimize. *Discovery of an optimum value of result effective variable in known process is ordinarily within the skill in the art and would have been obvious, consult In re Boesch and Slaney (205 USPQ 215 (CCPA 1980))*. Moreover, changes in size and proportion have been held obvious absent an unobvious change in operation of the device. See MPEP 21144.04(IV)(A).

9. As to providing a closed end cap on the first end of the filter and a radial housing seal arrangement which seals to a central housing standpipe, it is first worth mentioning that Rohrbach and Paul are directed to spin-on type oil filters. Gullet explains that such filters are ordinarily "throw-away" in that once the filter is used, the entire spin-on filter is thrown away (**See Gullet col. 1 lines 20-50**), but Gullet explains that portions of the filter besides the element still have useful life even though the filter element has been completely expended (**See Gullet col. 1 lines 45-49**). In order to create a filter assembly which has a replaceable element, Gullet provides a central tube (**Gullet 40**), a sealing portion which attaches to the central tube thereby forming a seal (**See 59**), and an impervious endcap at the distal end (**See 57**). Gullet explains that the sealing surface allows the filter to fit snugly against the central core and provides a radial seal (**See col. 8 lines 17-25**). A person of ordinary skill in the art at the time of invention would recognize that the sealing surface and the imperforate endcap of the filter shown in Gullet prevents oil from bypassing the replaceable filter media once inserted into the housing area for use. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to provide an imperforate distal endplate

and a radial seal arrangement in order to facilitate providing a replaceable filter cartridge for use in an openable filter housing.

10. Moreover, with respect to the combination of Rohrbach and Paul, a person having ordinary skill would have found it obvious to place the sealing member on the treatment cartridge since in Rohrbach a seal is formed between the bottom of the treatment cartridge portion and the outlet of the filter housing (**See c in Fig. annotated Fig. 5 above**). Instead Gullet contemplates the use of a sealing surface of the end cap of the filter element. However, Jawurek is directed to a filter with a replaceable filter housing and Jawurek provides for a separate sealing gasket member (**See 16 in the Figs**). Jawurek teaches that the use of a seal seals the clean fluid side from the raw fluid side (**See Jawurek col. 2 lines 55-60**). Moreover, a person having ordinary skill in the art at the time of invention would recognize that the use of a seal sealing gasket member allows for the seal portion to be formed of a different material than the other portions of the filter cartridge. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to provide a gasket sealing member on the treatment cartridge in order to seal the treatment cartridge to the central tube.

11. Finally, as to providing an impermeable wall there around in extension completely between the first and second ends of the filter media, the removal of elements found in the prior art is considered obvious if their function is not desired. See MPEP 2144.04(II)(A). In this case, it would be obvious to initially omit the housings of Rohrbach and Paul while preparing a filter element/additive cartridge combination for

Art Unit: 1776

insertion into a housing during assembly, so that the combination filter element/additive cartridge combination may be assembled openly without being constricted a housing.

12. Claims 4-11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohrbach, Paul, Gullet and Jawurek and in further view of U.S. Patent No. 6,322,697 to Hacker et al. ("Hacker").

13. As to claim 4, Rohrbach, Paul, Gullet and Jawurek teach the device of claim 1, and Paul teaches that the solid additive ring has an extending peripheral lip, in addition to the end plate and an inner wall, which forms a cup for holding the additive (**Paul See Figs 8-10, the cup is formed from the inner wall, top, and extending lip of the additive cap. Especially see 200 in Fig. 8, 200a in Fig 9, and 202 in Fig. 10, Paul contemplates varying the size of the extending lip as well as placing openings on it**). Paul teaches that varying the apertures on lip controls the dissolution rate of the additive (**See Paul col. 12 lines 45-65**). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to provide a cup with a lip when providing the additive body in Rohrbach in order to control the dissolution rate of the additive within the filter. Also, in the configuration of the additive in Paul the end cap of the filter forms a cover section for the additive (**See 54 in Figs 1 and 8**).

14. However, Rohrbach, Paul, Gullet and Jawurek do not mention whether the filter is attached to the cover with adhesive. Hacker teaches an oil filter with end caps in which the filter element is sealed and secured with adhesive to the end caps (**See Hacker col. 3 lines 50-65**). A person having ordinary skill in the art would recognize

Art Unit: 1776

that sealing and securing the filter in Rohrbach and Paul to the end cap will prevent movement of the filter within the housing and would also prevent oil from passing between the filter and the cover. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to secure the filter media to a cover/end-cap section with adhesive in the filter of Rohrbach, Paul, Gullet and Jawurek in order to secure the filter element and to prevent oil from passing between the media and the end cap of the filter.

15. As to claim 5, Rohrbach, Paul Gullet and Jawurek, and Hacker teach the filter of claim 4, and although Rohrbach does not mention the use of a mounting prong arrangement extending from a first endcap, the configuration is shown in Jawurek (**See Jawurek 4 in the Figures**). Jawurek explains that a mounting prong arrangement allows for the filter media to be removed without the need to come in direct contact with the media (**See col. 1 lines 40-45**), and Jawurek further explain that the prong arrangement forms a reliable releaseable connection (**See Jawurek col. 1 lines 55-62**). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to include a prong arrangement axially mounted on the distal end cap of the filter cartridge in order to facilitate removal of the filter media without coming in direct contact with it.

16. As to claim 6, Rohrbach as modified by Paul, Gullet, Jawurek, and Hacker teach the filter cartridge of claim 5, and Rohrbach depicts using a pleated media (**See [0055]**).

Art Unit: 1776

17. As to claim 7, Rohrbach as modified by Paul, Gullet, Jawurek, and Hacker teach the filter cartridge of claim 6, and Rohrbach teaches that support screens are optional **(Rohrbach [0055])**, and it would be obvious to omit a screen for support if the filter were self supporting. See MPEP 21144.04(II)(A), *omission of an element and its function is obvious if the function of the element is not desired/needed*. Therefore, it would have been obvious to a person of ordinary skill in the art to omit the cylindrical support screen.

18. As to claims 8-10, Rohrbach as modified by Paul, Gullet, Jawurek, and Hacker teach the filter cartridge of claim 7, and the axial length ratio is a result effective variable which controls the amount of treatment agent which will be carried by the filter, and the amount of treatment agent which may be exposed to the oil, thereby affecting the life of the additive and/or also the rate of delivery. *Discovery of the optimum value of result effective variable in known process is ordinarily within the skill in the art and would have been obvious, consult In re Boesch and Slaney (205 USPQ 215 (CCPA 1980))*.

Furthermore changes in size and proportion have been held obvious absent an unobvious change in operation of the device. See MPEP 21144.04(IV)(A).

19. As to claim 11, Rohrbach as modified by Paul, Gullet, Jawurek and Hacker teaches the device of claim 10, as shown in Gullet the distal end cap is imperforate **(See Gullet 57 in Figs. 2 and 3b)**.

Response to Arguments

20. Applicant's arguments filed 11-2-10 have been fully considered but they are not persuasive.

Art Unit: 1776

21. Applicant argues at length that there are some similar inventive concepts between the instant case and US 7160451 and 7238285, but that there are still differences especially in view of recent amendments to the claims. Applicant then argues with respect to the double patenting rejection of 4-2-09 that, in addition to providing a terminal disclaimer with respect to the potentially conflicting patents, that applicant has also presented amendments which in applicant's opinion would have independently obviated double patenting rejection and the need for a terminal disclaimer. Applicant requests whether the examiner would, but for the terminal disclaimer, reassert the double patenting rejection. Essentially, applicant is asking the examiner to consider the hypothetical question of whether the amendments independently overcome the double patenting rejections of 4-2-09, apparently so that applicant can attempt to withdraw the terminal disclaimer. In response, the double patenting rejections were withdrawn because of the filing of a terminal disclaimer. **If applicant had believed at the time of filing of the 9-1-09 response to the 4-2-09 rejection that the amendments were sufficient to overcome the double patenting rejection, then applicant should have presented that argument and not filed a terminal disclaimer. Instead, applicant's remarks in the filing of 9-1-09 indicate that applicant believed at that time that the filing of the terminal disclaimer results in a "resolution of the matter," and that it "does not raise substantial issue and is acceptable" (See applicant's remarks of 9-1-09, page 6).** Further applicant argues that the terminal disclaimer might be withdrawn. In response, the only discussion of withdrawal of terminal disclaimers found in the MPEP is MPEP 1490(VII)(A). In this

Art Unit: 1776

section of the MPEP withdrawal of a TD is only discussed in the context of "erroneous filing." This does not appear to be the case here since applicant had stated that the T.D. is filed in "resolution of the matter", that it "does not raise substantial issue and is acceptable." Further, Petitions seeking to reopen the question of the propriety of the double patenting rejection that prompted the filing of the terminal disclaimer **have not been favorably received**. See MPEP 1490(VII)(A), second paragraph, emphasis added. Finally, should applicant still believe that double patenting no longer exists between the claims as amended and the potentially conflicting patents, MPEP 1490 explains that "the filing of a continuing application other than a CPA, while abandoning the application in which the terminal disclaimer has been filed, will typically nullify the effect of the terminal disclaimer." See again MPEP 1490(VII)(A), second paragraph.

22. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

23. Applicant argues, with respect to Paul, that the examiner has not fully appreciated that the variables with respect to the amount and location of apertures lead to the desired operation of the system. Applicant explains that the liquid initially does not flow through the storage and release cartridge but flows around it until there is sufficient erosion has occurred for liquid to enter the apertures. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., obstructed apertures where the obstruction material erodes) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the

Art Unit: 1776

specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

24. In response to applicant's argument that the variables with respect to the amount and location of apertures affect erosion control of the treatment agent as well as flow control through the agent container, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

25. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

26.

Conclusion

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 1776

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Stelling whose telephone number is (571)270-3725. The examiner can normally be reached on Monday through Thursday 12:00PM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/591,728
Art Unit: 1776

Page 15

Primary Examiner, Art Unit 1776